

# Electronic Starter Device for Fluorescent Lamps



## New Quick Start Module™ Lowers Acquisition and Operating Costs for Fluorescent Technology

Beacon Light Products, Inc. designs, develops, and manufactures miniature electronic controls for lighting and other power applications. Through a grant from DOE's Inventions & Innovation Program, Beacon Light Products developed a quick and reliable electronic lamp starter for small fluorescent applications. Beacon's Quick Start Module (QSM™) represents state-of-the-art performance, reliability, and miniaturization for fluorescent lamp starters. Sophisticated micro-controller chips and custom high voltage thyristor technology are assembled on ceramic hybrid chip and wire substrates for high-reliability applications. The technology is an important improvement for lower wattage fluorescent lamps which still use older preheat circuit designs.

The technology provides superior performance to other electronic starters because QSM's application-specific integrated circuit gives the QSM a very fast start. Other features include a broad voltage operating range and safety shutdown of burned-out fluorescent lamps without flickering. Use of the inexpensive and easily installed QSM can double the life of a fluorescent lamp.

### Benefits

#### Ease of Installation

Is easily inserted into a conventional glow bottle canister or a compact fluorescent lamp.

#### Energy Savings

Makes using fluorescent lamps, which save energy, more desirable. Applications that choose fluorescent lighting will cut electricity use by at least 50% over incandescent lighting.

#### Pollution Control

Fewer lamps and glow bottle starters containing toxic chemicals end up in landfills. Fluorescent bulbs contain mercury-laden phosphor powder. Disposal of over 1 million bulbs per year result in over 90,000 pounds of mercury entering our environment each year (about 1 oz per bulb).

#### Productivity

Extends lamp life, thereby reducing maintenance and associated downtime needed to change burned-out light bulbs. For industrial and commercial users, the labor savings could range from dollars to hundreds of dollars per bulb, depending on how difficult they are to replace.

### Overview

- ◆ Developed by Beacon Light Products, Inc.
- ◆ Commercialized in 1999
- ◆ 1.6 million units sold through 2003

### Energy Savings (Trillion Btu)

Cumulative through 2003	2003
3.10	1.10

### Emissions Reductions (Thousand Tons, 2003)

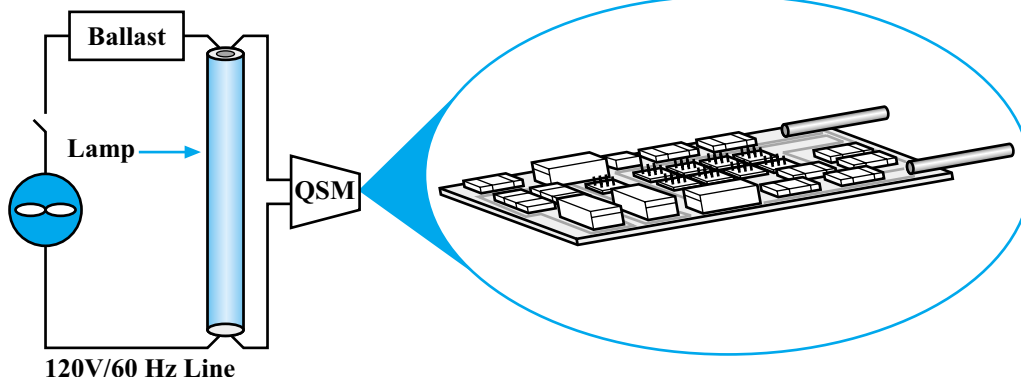
Particulates	SO <sub>x</sub>	NO <sub>x</sub>	Carbon
0.005	0.237	0.176	21.5

### Applications

- ◆ Low cost, high-performance fluorescent lamp starter
- ◆ Wide range of lighting applications from 5 to 40 watts

### Capabilities

- ◆ Replaces glow bottle starters for fluorescent lamps.
- ◆ Lowers the operating cost of fluorescent technology.
- ◆ Contains no toxic chemicals.



Quick Start Module